

PATENT COOPERATION TREA

PCT
NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 72.2)

From the INTERNATIONAL BUREAU

To:

IKEUCHI, Hiroyuki
 Suite 401
 Umeda Plaza Building
 3-25, Nishitenma 4-chome
 Kita-ku, Osaka-shi
 Osaka 530-0047
 JAPON



Date of mailing (day/month/year) 03 April 2000 (03.04.00)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference H401-01	
International application No. PCT/JP98/02954	International filing date (day/month/year) 29 June 1998 (29.06.98)
Applicant NITTO DENKO CORPORATION et al	

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

EP,CN,US

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

JP,KR

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 740.14.35	Authorized officer Luis Hernandez Telephone No. (41-22) 338.83.38
--	---

47
Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference H401-01	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP98/02954	International filing date (<i>day/month/year</i>) 29 June 1998 (29.06.1998)	Priority date (<i>day/month/year</i>) 02 July 1997 (02.07.1997)
International Patent Classification (IPC) or national classification and IPC B01D 71/56, 69/12, B32B 5/18, 27/34		
Applicant NITTO DENKO CORPORATION		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>1</u> sheets.</p>
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>

Date of submission of the demand 18 November 1998 (18.11.1998)	Date of completion of this report 13 May 1999 (13.05.1999)
Name and mailing address of the IPEA/JP Japanese Patent Office, 4-3 Kasumigaseki 3-chome Chiyoda-ku, Tokyo 100-8915, Japan Facsimile No.	Authorized officer Telephone No. (81-3) 3581 1101

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP98/02954

I. Basis of the report

1. With regard to the **elements** of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages 1-14, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
pages 2, 3, 5-17, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages 1, filed with the letter of 26 April 1999 (26.04.1999)
- ☐ the drawings:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☒ the claims, Nos. 4
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP 98/02954

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-3, 5-17	YES
	Claims		NO
Inventive step (IS)	Claims	1-3, 5-17	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-3, 5-17	YES
	Claims		NO

2. Citations and explanations

See the documents listed below.

Since neither Document 1 nor Document 2 discloses or suggests a composite reverse osmosis membrane, wherein the contact angle of water on the surface of the polyamide skin layer is 45° or less, the salt blocking rate is 98% or more even in low operational pressure (5kgf/cm²) and with water permeability of 0.5m³/m²·day or more, the invention disclosed in Claim 1 and the inventions disclosed in Claims 2, 3 and 5, which refer back to Claim 1 are novel and involve an inventive step.

Since neither Document 1 nor Document 2 discloses or suggests the formation of a polyamide layer by bringing a solution B containing a polyfunctional acid halide compound into contact with a layer coated and formed with a solution A containing a compound having an amino group, thereafter bringing a solution C containing a polyfunctional halide acid compound having a higher concentration than that of solution B into contact with the above layer, the invention disclosed in Claim 6 and the inventions disclosed in Claims 7 through 17, which refer back to Claim 6 are novel and involve an inventive step.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP 98/02954

Reference Documents

1. JP, 61-46203, A (Nitto Electric Industrial Co., Ltd.),
March 6, 1986 (06.03.86)
2. JP, 59-132905, A (Aligena AG.), July 31, 1984
(31.07.84)